CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

1. A communications network analysis system, comprising:

one or more software applications which provide or use a site-specific computerized model of one or more physical environments, said one or more software applications performing one or more of

a) modeling electrical performance of a communications network or one or more components which are or may be used in a communications network,

b) determining a cost of said communications network or said one or more components which are or may be used in said communications network,

c) storing or editing maintenance records of said communications network or said one or more components which are or may be used in said communications network,

d) providing analysis, measurement, or simulation of said communications network or said one or more components which are or may be used in said communications network,

e) visualizing within said site-specific computerized model of said physical environment a configuration of said communications network or said one or more components which are or will be used in said communications network, and

f) verifying proper interconnections or identifying errors in interconnections in said communications network or said one or more components which are or may be used in said communications network; and

a parts list library forming part of said one or more software applications or which is usable by said one or more software applications, said parts list library comprising information pertaining to a plurality of components which are or may be used in said communications network and at least some of said information including frequency characteristics of particular components of said plurality of components and at least some of said plurality of components being wireless communication components, and

wherein said plurality of components are each represented by a standard mark up language in said parts list library which is transferable between one or more computers or one or more software applications.

2. The communications network analysis system of claim 1 wherein said standard mark up language is XML.

3. The communications network analysis system wherein said information includes one or more of cost data, maintenance data, measured data, electromechanical data, manufacturer's data, physical connector data, and orientation data.

4. The communications network analysis system of claim 1 wherein said parts list library contains one or more component kits which include information for two or more components of the plurality of components when used in combination.

5. The communications network analysis system of claim 4 wherein said information for said two or more components includes electromechanical properties for each of said two or more components.

6. The communications network analysis system of claim 4 wherein said information for said two or more components includes electromechanical properties for a combination of said two or more components.

7. The communications network analysis system of claim 1 further comprising an editor for editing information for one or more components of said plurality of components in said parts list library.

8. The communications network analysis system of claim 7 wherein said editor is part of said one or more software applications.

9. The communications network analysis system of claim 1 wherein said parts list library is separate from said one or more software applications.

10. The communications network analysis system of claim 1 wherein said parts list library is accessible from a remote location by said one or more software applications.

11. The communications network analysis system of claim 1 further comprising an electronic storage for storing information for one or more components of said plurality of components in said parts list library.

12. The communications network analysis system of claim 1 wherein said information in said parts list library includes one or more of manufacturer name, manufacturer part number, user supplied description, frequency range at which part has been tested, attenuation, amplification, number of connections, physical cost, installation cost, antenna radiation pattern, maximum input signal power, maximum length for cables, and modality of component type.

13. A machine readable electronic file which is prepared using

one or more software applications which provide or use a site-specific computerized model of one or more physical environments, said one or more software applications performing one or more of

a) modeling electrical performance of a communications network or one or more components which are or may be used in a communications network,

b) determining a cost of said communications network or said one or more components which are or may be used in said communications network,

c) storing or editing maintenance records of said communications network or said one or more components which are or may be used in said communications network,

d) providing analysis, measurement, or simulation of said communications network or said one or more components which are or may be used in said communications network,

e) visualizing within said site-specific computerized model of said physical environment a configuration of said communications network or said one or more components which are or will be used in said communications network, and

f) verifying proper interconnections or identifying errors in interconnections in said communications network or said one or more components which are or may be used in said communications network; and

a parts list library forming part of said one or more software applications or which is usable by said one or more software applications, said parts list library comprising information pertaining to a plurality of components which are or may be used in said communications network and at least some of said information including frequency characteristics of particular components of said plurality of components and at least some of

said plurality of components being wireless communication components, and

wherein said plurality of components are each represented by a standard mark up language in said parts list library which is transferable between one or more computers or one or more software applications,

said electronic file comprising:

a site-specific computerized model of one or more physical environments in which a communications network is or may be deployed; and

computerized representations of one or more components obtained from said parts list library.

14. The machine readable electronic file of claim 13 wherein said standard mark up language is XML.

15. The machine readable electronic file of claim 13 wherein said information in said parts list library includes one or more of manufacturer name, manufacturer part number, user supplied description, frequency range at which part has been tested, attenuation, amplification, number of connections, physical cost, installation cost, antenna radiation pattern, maximum input signal power, maximum length for cables, and modality of component type.

16. The machine readable electronic file of claim 13 wherein said information includes one or more of cost data, maintenance data, measured date, electromechanical data, manufacturer's data, physical connector data, and orientation data.

17. The machine readable electronic file of claim 13 further comprising one or more component kits which include information for two or more components of the plurality of components when used in combination.

18. A machine readable parts list library, comprising information pertaining to a plurality of components which are or may be used in an in-building or campus communications network and at least some of said information including frequency characteristics of particular components of said plurality of components and at least some of said plurality of components being wireless communication components, and wherein said plurality of components are each represented by a standard mark up language in said parts list library which is transferable between one or more computers or one or more software applications, and wherein said parts list library is usable by one or more software applications which provide or use a site-specific computerized model of one or more physical environments and perform one or more of

a) modeling electrical performance of a communications network or one or more components which are or may be used in a communications network,

b) determining a cost of said communications network or said one or more components which are or may be used in said communications network,

c) storing or editing maintenance records of said communications network or said one or more components which are or may be used in said communications network,

d) providing analysis, measurement, or simulation of said communications network or said one or more components which are or may be used in said communications network,

e) visualizing within said site-specific computerized model of said physical environment a configuration of said communications network or

said one or more components which are or will be used in said communications network, and

f) verifying proper interconnections or identifying errors in interconnections in said communications network or said one or more components which are or may be used in said communications network.

19. The machine readable parts list library of claim 18 wherein said information is accessible from a remote location by said one or more software applications.

20. The machine readable parts list library of claim 18 wherein said standard mark up language is XML.

21. The machine readable parts list library of claim 18 wherein said information includes one or more of cost data, maintenance data, measured date, electromechanical data, manufacturer's data, physical connector data, and orientation data.

22. The machine readable parts list library of claim 18 wherein said parts list library contains one or more component kits which include information for two or more components of the plurality of components when used in combination.

23. The machine readable parts list library of claim 18 wherein said information in said parts list library includes one or more of manufacturer name, manufacturer part number, user supplied description, frequency range at which part has been tested, attenuation, amplification, number of connections, physical cost, installation cost, antenna radiation pattern, maximum input signal power, maximum length for cables, and modality of component type.

24. The machine readable parts list library of claim 18 being contained in transferable file which can be transferred between one or more computers or one or more software applications.

25. A machine readable electronic file for use in

one or more software applications which provide or use a site-specific computerized model of one or more physical environments, said one or more software applications performing one or more of

a) modeling electrical performance of a communications network or one or more components which are or may be used in a communications network,

b) determining a cost of said communications network or said one or more components which are or may be used in said communications network,

c) storing or editing maintenance records of said communications network or said one or more components which are or may be used in said communications network,

d) providing analysis, measurement, or simulation of said communications network or said one or more components which are or may be used in said communications network,

e) visualizing within said site-specific computerized model of said physical environment a configuration of said communications network or said one or more components which are or will be used in said communications network, and

f) verifying proper interconnections or identifying errors in interconnections in said communications network or said one or more components which are or may be used in said communications network; said machine readable electronic file comprising:

a parts list library forming part of said one or more software applications or which is usable by said one or more software applications,

said parts list library comprising information pertaining to a plurality of components which are or may be used in said communications network and at least some of said information including frequency characteristics of particular components of said plurality of components and at least some of said plurality of components being wireless communication components, and

wherein said plurality of components are each represented by a standard mark up language in said parts list library which is transferable between one or more computers or one or more software applications.

26. The machine readable electronic file of claim 25 wherein said standard mark up language is XML.

27. The machine readable electronic file of claim 25 wherein said information in said parts list library includes one or more of manufacturer name, manufacturer part number, user supplied description, frequency range at which part has been tested, attenuation, amplification, number of connections, physical cost, installation cost, antenna radiation pattern, maximum input signal power, maximum length for cables, and modality of component type.

28. The machine readable electronic file of claim 25 wherein said information includes one or more of cost data, maintenance data, measured date, electromechanical data, manufacturer's data, physical connector data, and orientation data.

29. The machine readable electronic file of claim 25 further comprising one or more component kits which include information for two or more components of the plurality of components when used in combination.

30. A communications network analysis system, comprising:

means for using one or more software applications which provide or use a site-specific computerized model of one or more physical environments, said one or more software applications performing one or more of

a) modeling electrical performance of a communications network or one or more components which are or may be used in a communications network,

b) determining a cost of said communications network or said one or more components which are or may be used in said communications network,

c) storing or editing maintenance records of said communications network or said one or more components which are or may be used in said communications network,

d) providing analysis, measurement, or simulation of said communications network or said one or more components which are or may be used in said communications network,

e) visualizing within said site-specific computerized model of said physical environment a configuration of said communications network or said one or more components which are or will be used in said communications network, and

f) verifying proper interconnections or identifying errors in interconnections in said communications network or said one or more components which are or may be used in said communications network; and

a parts list library forming part of said one or more software applications or which is usable by said one or more software applications, said parts list library comprising information pertaining to a plurality of components which are or may be used in said communications network and at least some of said information including frequency characteristics of

particular components of said plurality of components and at least some of said plurality of components being wireless communication components, and

wherein said plurality of components are each represented by a standard mark up language in said parts list library which is transferable between one or more computers or one or more software applications.

31. The communications network analysis system of claim 30 further comprising means for obtaining information from said parts list library.

32. A method for performing communications network analysis, comprising the steps of:

using one or more software applications which provide or use a site-specific computerized model of one or more physical environments, to perform one or more

a) modeling electrical performance of a communications network or one or more components which are or may be used in a communications network,

b) determining a cost of said communications network or said one or more components which are or may be used in said communications network,

c) storing or editing maintenance records of said communications network or said one or more components which are or may be used in said communications network,

d) providing analysis, measurement, or simulation of said communications network or said one or more components which are or may be used in said communications network,

e) visualizing within said site-specific computerized model of said physical environment a configuration of said communications network or

said one or more components which are or will be used in said communications network, and

f) verifying proper interconnections or identifying errors in interconnections in said communications network or said one or more components which are or may be used in said communications network; and

obtaining from a parts list library forming part of said one or more software applications or which is usable by said one or more software applications, information pertaining to a plurality of components which are or may be used in said communications network and at least some of said information including frequency characteristics of particular components of said plurality of components and at least some of said plurality of components being wireless communication components, and wherein said plurality of components are each represented by a standard mark up language in said parts list library which is transferable between one or more computers.

33. The method of claim 32 wherein said standard mark up language is XML.

34. The method of claim 32 wherein said information includes one or more of cost data, maintenance data, measured data, electromechanical data, manufacturer's data, physical connector data, and orientation data.

35. The method of claim 32 wherein said parts list library contains one or more component kits which include information for two or more components of the plurality of components when used in combination.

36. The method of claim 32 wherein said information for said two or more components includes electromechanical properties for each of said two or more components.

37. The method of claim 36 wherein said information for said two or more components includes electromechanical properties for a combination of said two or more components.

38. The method of claim 32 further comprising the step of editing information for one or more components of said plurality of components in said parts list library.

39. The method of claim 32 wherein said parts list library is separate from said one or more software applications.

40. The method of claim 32 further comprising the step of accessing said parts list library from a remote location by said one or more software applications.

41. The method of claim 32 further comprising the step of storing information for one or more components of said plurality of components in said parts list library.

42. The method of claim 32 wherein said information in said parts list library includes one or more of manufacturer name, manufacturer part number, user supplied description, frequency range at which part has been tested, attenuation, amplification, number of connections, physical cost, installation cost, antenna radiation pattern, maximum input signal power, maximum length for cables, and modality of component type.

43. The method of claim 32 further comprising the step of generating an electronic file comprising:

a site-specific computerized model of one or more physical environments in which a communications network is or may be deployed; and

computerized representations of one or more components obtained from said parts list library.

44. The method of claim 43 wherein said standard mark up language is XML.

45. The method of claim 43 further comprising the step of transferring all or a portion of said electronic file between at least two computers.

46. The method of claim 43 further comprising the step of transferring all or a portion of said electronic file between at least two software applications.

47. The method of claim 43 further comprising the step of storing said electronic file in an electronic storage device.

48. The method of claim 32 wherein said parts list library is stored on an electronic file which is transferrable between one or more computers or one or more software applications, and further comprising the step of transferring all or a portion of said electronic file between one or more computers or one or more software applications.

49. A method of using a machine readable parts list library which comprises information pertaining to a plurality of components which are or may be used in a communications network and at least some of said

information including frequency characteristics of particular components of said plurality of components and at least some of said plurality of components being wireless communication components, and wherein said plurality of components are each represented by a standard mark up language in said parts list library which is transferable between one or more computers, comprising the steps of:

providing information from said machine readable parts list library to one or more software applications which provide or use a site-specific computerized model of one or more physical environments; and

performing one or more of

a) modeling electrical performance of a communications network or one or more components which are or may be used in a communications network,

b) determining a cost of said communications network or said one or more components which are or may be used in said communications network,

c) storing or editing maintenance records of said communications network or said one or more components which are or may be used in said communications network,

d) providing analysis, measurement, or simulation of said communications network or said one or more components which are or may be used in said communications network,

e) visualizing within said site-specific computerized model of said physical environment a configuration of said communications network or said one or more components which are or will be used in said communications network, and

f) verifying proper interconnections or identifying errors in interconnections in said communications network or said one or more components which are or may be used in said communications network.

50. The method of claim 49 further comprising accessing from a remote location by said one or more software applications.

51. The method of claim 49 wherein said standard mark up language is XML.

52. The method of claim 49 wherein said information includes one or more of cost data, maintenance data, measured date, electromechanical data, manufacturer's data, physical connector data, and orientation data.

53. The method of claim 49 wherein said parts list library contains one or more component kits which include information for two or more components of the plurality of components when used in combination.

54. The method of claim 49 wherein said information in said parts list library includes one or more of manufacturer name, manufacturer part number, user supplied description, frequency range at which part has been tested, attenuation, amplification, number of connections, physical cost, installation cost, antenna radiation pattern, maximum input signal power, maximum length for cables, and modality of component type.

55. The method of claim 49 wherein said parts list library is stored on an electronic file which is transferrable between one or more computers or one or more software applications, and further comprising the step of transferring all or a portion of said electronic file between one or more computers or one or more software applications.